

CLAIM OR CLAIMS

1. A diaphragm in laminators for the production of photovoltaic cells, including a flexible body comprising at least one first layer engineered as an elastomeric conformable composite of fluorinated rubber and a first cross-linkable polymeric material, the proportion of fluorinated rubber being in the range of 95.0 % by weight to 1.0 % by weight, and said first cross-linkable polymeric material being selected from the group comprising hydrated nitrile rubber, ethylene propylene diene rubber, acrylic nitrile butadiene rubber, ethylene vinyl acetate rubber, fluorinated silicone rubber, silicone rubber or a blend of at least two of these materials.

2. A diaphragm in laminators for the production of photovoltaic cells, including a flexible body comprising at least one first layer engineered as an elastomeric composite of fluorinated silicone rubber and a second cross-linkable polymeric material, the proportion of fluorinated silicone rubber being in the range of 95.0 % by weight to 1.0 % by weight, said second cross-linkable polymeric material being selected from the group comprising hydrated nitrile rubber, ethylene propylene diene rubber, acrylic nitrile butadiene rubber, ethylene vinyl acetate rubber, fluorinated rubber, silicone rubber or a blend of at least two of these materials.

3. The diaphragm as set forth in claim 1, wherein said body comprises a second layer engineered from said first cross-linkable polymeric material or said second cross-linkable polymeric material.

4. The diaphragm as set forth in claim 2, wherein said body comprises a second layer engineered from said first cross-linkable polymeric material or said second cross-linkable polymeric material.

5. The diaphragm as set forth in claim 3, wherein said first layer is a cover layer preferably 0.5 mm to 1.0 mm thick and said second layer is a base layer preferably 1.5 mm to 3.5 mm thick.

6. The diaphragm as set forth in claim 4, wherein said first layer is a cover layer preferably 0.5 mm to 1.0 mm thick and said second layer is a base layer preferably 1.5 mm to 3.5 mm thick.

7. The diaphragm as set forth in claim 1, wherein said first layer comprises a proportion of fluorinated rubber in the range of 90.0 % by weight to 5.0 % by weight, or a proportion of fluorinated silicone rubber in the range of 90.0 % by weight to 5.0 % by weight.

8. The diaphragm as set forth in claim 2, wherein said first layer comprises a proportion of fluorinated rubber in the range of 90.0 % by weight to 5.0 % by weight, or a proportion of fluorinated silicone rubber in the range of 90.0 % by weight to 5.0 % by weight

9. The diaphragm as set forth in claim 3, wherein said second layer comprises a proportion of silicone rubber in the range of 100.0 % by weight to 0.0 % by weight, preferably in the range of 90.0 % by weight and 10.0 % by weight, or a proportion of fluorinated silicone rubber in the range of 100.0 % by weight and 0.0 % by weight, preferably in the range of 90.0 % by weight and 10.0 % by weight, or a proportion of fluorinated rubber in the range of 100.0 % by weight and 0.0 % by weight, preferably in the range of 90.0 % by weight and 10.0 % by weight.

10. The diaphragm as set forth in claim 4, wherein said second layer comprises a proportion of silicone rubber in the range of 100.0 % by weight to 0.0 % by weight, preferably in the range of 90.0 % by weight and 10.0 % by weight, or a proportion of fluorinated silicone rubber in the range of 100.0 % by weight and 0.0 % by weight, preferably in the range of 90.0 % by weight and 10.0 % by weight, or a proportion of fluorinated rubber in the range of 100.0 % by weight and 0.0 % by weight, preferably in the range of 90.0 % by weight and 10.0 % by weight.

11. A laminator for the production of photovoltaic cells, having a diaphragm as set forth in claim 1.

12. A laminator for the production of photovoltaic cells, having a diaphragm as set forth in claim 2.